

ABSTRACT OF THE DISCLOSURE

In a solution of metal-polymer cholate(s) and applications thereof, a metal-polymer cholate is prepared by mixing water and R-COOH soluble carbohydrate molecules and/or hydroxyl or hydroxyl amino and/or carboxyl and/or carbohydrate polymers, metal salts and/or ammonia or amines. The solution of metal-polymer cholate(s) is used extensively in different technical areas including oxidation, condensation, degradation, oxidizing condensation, gas detection, artificial imitated chitosan solution, artificial imitated glucosamine, disinfectant, biochemical reaction for fermentation, biological protein and its metabolite purification, metal enzyme biocatalyst, dry activation of protein enzyme, bacteria preservation systems, oil product, plant, semiconductor, nano filtration, nano material production, nano inorganic matter, nano ceramic, nano plastic, nano textile, battery, liquid crystal, and biochip. These reactions give effects for chemical engineering, gas removal, and waste solvent treatment.